

REMARKS

Below, the applicant's comments are preceded by related remarks of the examiner set forth in small bold font.

Claim 42 is rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claim 42 recites the limitation "the user defined number of cells" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

Applicants have amended claim 42.

Claims 1-4, 6, 7, 9-11, 13, 15, 16, 18, 19, 24, 26-33, 35-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cam et al. (US006671758B1), hereafter Cam, in view of Bucholz et al. (US005440545A), hereafter Bucholz.

In regards to Claims 1, 2, 4, 6, 9, 10, 13, 15, 16, 18, 19, 24, 26-28, 32, 35-41, Cam discloses a packet data transfer method on an interface having a large number of ports (Abstract; claim 1, 9, 24 - intra-packet switching)... Cam does not explicitly disclose fragmentation of the first available packet using a signal processing circuit and storing, in memory of the processing circuit, a data element indicative of the incomplete fragmentation status concerning the first available packet...

Bucholz discloses a packet delivery system in which packets are fragmented for transmission (Title; Abstract). Referring to Fig. 6, Bucholz shows that a reassembly header (stored data element) is stored in the fragmented packet indicating its place within the packet, total packet length, total fragments, etc. such that the progress of the packet's fragmentation can be determined (Col. 6-7, lines 63-23)...

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Cam by processing packet fragments in a signal processing circuit and storing a reassembly header for a first packet being processed in memory of the processing circuit, the header including information regarding total packet length, how much of the packet has been fragmented and how much remains to be fragmented, so that subsequent fragment processing of other packets and the remainder of the first packet can be performed, as taught by Bucholz.

The examiner provides the following additional comments regarding claim 1 in response to the Applicant's remarks filed December 19, 2005.

In the Remarks on pgs. 14-17 of the Amendment, Applicant contends that the combination of Cam and Bucholz does not disclose or suggest a data element that is either indicative of the incomplete fragmentation status...

The Examiner respectfully disagrees. Referring to Fig. 6 and column 6-7, lines 63-13, the reassembly header 430 disclosed by

Bucholz provides information including packet ID, sequence number, total fragments, fragment number, and total packet length for each packet that is fragmented for transmission. This information shows that the header (data element) is indicative of the incomplete fragmentation status for a packet, as claimed by Applicant... The information contained within the reassembly header would therefore enable subsequent fragmenting and reception of the remainder of the packet. Reference to Fig. 2 and lines 44-55 of column 2 in Bucholz further demonstrates this, by showing that control information is generated for each fragment of a packet rather than generating one set of control information for all the fragments of a particular packet. The control information of each fragment enables the subsequent fragmentation of the packet data that remains.

The applicant disagrees. As the examiner acknowledges, Cam does not disclose or suggest storing a data element that enables fragmenting of a second portion of a first available data packet subsequent to fragmenting at least a portion of a second available data packet.

Bucholz's reassembly header, to which the examiner refers, simply provides information for re-assembling packet fragments. Unlike the applicant's data element, the reassembly header 430 is not "indicative of the incomplete fragmentation status of said first available data packet."

Bucholz's reassembly header 430 includes a logical unit identification (LUID) 610, a packet identification (ID) field 620, a sequence number field 630, total fragment field 640, a fragment number field 650, a total packet length field 660, and a protocol field 670. (col.6, line 67 – col. 7, line 4). None of these fields describes or would have made obvious a data element indicative of an incomplete fragmentation status. Each of these fields of Bucholz's reassembly header 430 are addressed below.

Logical unit identification (LUID) 610 – According to Bucholz the logical unit identification 610 "defines the logical unit identification of the originating device." (col. 7, lines 5-6). Identification of the originating device is not "indicative of the incomplete fragmentation status of said first available data packet." It cannot possibly be determined from LUID 610 whether the

fragmentation status is complete or incomplete. Therefore Bucholz's LUID 610 cannot be the applicant's data element.

Packet identification (ID) field 620 and sequence number field 630 –

According to Bucholz the packet identification (ID) field 620 and the sequence number field 630 “in combination, are used to provide a unique ID for each data packet.” (col. 7, lines 7-9). Thus, fields 620 and 630 are used merely to identify the packet for reassembly and are not “indicative of the incomplete fragmentation status of said first available data packet.” It cannot possibly be determined from fields 620 and 630 whether the fragmentation status is complete or incomplete. Therefore Bucholz's fields 620 and 630 cannot be the applicant's data element.

Total fragment field 640 - According to Bucholz the total fragment field 640 “defines the total number of fragments comprising the data packet in question.” (col. 7, lines 15-16). Identification of the total number of fragments is not “indicative of the incomplete fragmentation status of said first available data packet.” It cannot possibly be determined from total fragment field 640 whether the fragmentation status is complete or incomplete. Therefore Bucholz's total fragment field 640 cannot be the applicant's data element.

Fragment number field 650 – According to Bucholz the fragment number field 650 “defines which of the fragments is being received.” (col. 7, lines 17-18). The identification of a fragment does not indicate the “incomplete fragmentation status of said first available data packet” and therefore, cannot be the applicant's data element.

Total packet length field 660 - According to Bucholz the total packet length field 660 “defines the length in bytes of the data packet as reassembled.” (col. 7, lines 19-20). The total length of the packet does not provide information about whether the fragmentation process is complete and it cannot possibly be determined from the total length of the packet whether the fragmentation status is complete or incomplete. Therefore, field 660 cannot be the applicant's data

element.

Protocol field 670 - According to Bucholz the protocol field 670 is employed to "assure the proper receipt of each fragment." (col. 7, lines 20-23). Since the Protocol field 670 is associated with the receipt status it is not "indicative of the incomplete fragmentation status of said first available data packet." It cannot possibly be determined from protocol field 670 whether the fragmentation status is complete or incomplete. Therefore, protocol field 670 cannot be the applicant's data element.

As shown above, none of the fields in Bucholz's reassembly header, to which the examiner refers, can be construed as the applicant's "data element indicative of the incomplete fragmentation status of said first available data packet." If the examiner is to maintain this rejection, the applicant requests that the examiner point out with particularity from which of the fields of Bucholz's reassembly header he believes it could possibly be determined whether the status of the fragmentation is complete or incomplete.

Claims 9, 21, and 24 all recite "a packet information storage process for storing at least one data element concerning the first data packet, wherein said data element enables fragmenting of a second portion of the first data packet subsequent to fragmenting at least a portion of a second available data packet" and are patentable for at least reasons similar to claim 1.

Claims 29 and 32 recite "storing at least one data element concerning the first available data packet, wherein the data element enables fragmenting of a second portion of the first available data packet subsequent to fragmenting at least a portion of a second available data packet" and are patentable for at least reasons similar to claim 1.

Claims 2, 4, 6, 10, 12-13, 15-16, 18-19, and 26-28 are patentable for at least the reasons the claims on which they depend are patentable.

In regards to Claims 3 and 11 ...
In regards to Claim 7 ...

In regards to Claims 29-31 and 33 ...
Claim 42 ...
In regards to Claims 5, 8, 14, and 17 ...
In regards to Claims 20-22 and 34 ...
In regards to Claim 23 ...
In regards to Claim 25 ...

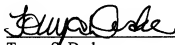
Claims 3, 5, 7-8, 11, 14, 17, 20, 22-23, 25, 30-31, and 33-34 are patentable for at least the reasons the claims on which they depend are patentable.

The fact that the applicant has addressed certain comments of the examiner does not mean that the applicant concedes any other positions of the examiner. The fact that the applicant has asserted certain grounds for the patentability of a claim does not mean that there are not other good grounds for patentability of that claim or other claims. The fact that the applicant has amended a claim does not mean that the applicant conceded the examiner's position with respect to that claim.

Please apply any other charges to deposit account 06-1050.

Respectfully submitted,

Date: 5/11/00



Tonya S. Drake
Reg. No. 57,861

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110
Telephone: (617) 542-5070
Facsimile: (617) 542-8906